

REMARKS

Reconsideration of the application is respectfully requested for the following reasons:

1. Amendments to Claims

Claim 1 has been amended to recite the decision maker, executor, and monitor of claim 2, but not the setup manager, inspector, learner, and communicator. Support for the amendments to claim 1 (in addition to the support provided by original claim 2) may be found in the description at page 5, line 21 to page 8, line 4 of the original specification, and in Fig.1

Claims 2 and 6 have been amended to include each of the limitations of claim 1, from which they originally depended.

2. Allowable Subject Matter

Claim 2 is directed to allowable subject matter, as indicated in item 3 on page 3 of the Official Action. Claims 3-5 depend from claim 2 and were also indicated as allowable.

3. Rejection of Claims 1 and 6 35 USC §102(b) in view of U.S. Patent No. 5,991,528 (Taylor)

This rejection is respectfully traversed on the grounds that the Taylor patent fails to disclose or suggest a STEP-NC in which a control module for reflecting functional level requirements includes a decision maker, executor, and monitor, as claimed.

The present invention, as defined in the amended claim 1, is directed to an intelligent STEP-NC capable of performing a machining process based on an ISO 14649 data model while effectively coping with an emergency at a shop-floor, thereby overcoming discontinuity of information in a CAD-CAM-CNC chain and realizing a “design-to-manufacture” concept in the true sense. The intelligent STEP-NC includes a control module 14, a SFP/TPG module 10 and a common DB module 12 (see page 5, lines 10 to 15 of the present invention). In particular, the

control module 14 of the present invention, has a decision maker, an executor and monitor which are software-based modules to effectively reflect functional level requirements of each controller of a machining tool.

The Taylor patent, on the other hand, is directed to an expert manufacturing system for defining a manufacturing plan for producing a part. The system includes an expert manufacturing system 10 (allegedly corresponding to the SFP/TPG module of the present invention), a process control system 24 (allegedly corresponding to the control module 14 of the present invention), a device controller 32, and a manufacturing devices 34 (see col.4, lines 32 to 34 of the Taylor patent). The external storage 16 corresponding the common DB module is included in the expert manufacturing system 10 (see Fig. 1 of the Taylor patent).

According to the Examiner, the process control system 24 of Taylor corresponds to the control module 14 of the present invention because Taylor discloses that process control system 24 plays a supervisory role, monitoring the operations of the manufacturing devices 34, archiving control program and downloading the appropriate control programs to the device controller 32. However, the Taylor patent fails to disclose or suggest that the control module 14 includes a decision maker, executor, and monitor, which are software-based modules, for supporting machining functions. As a result, the process control system 24 of Taylor does not perform the same functions as, and is not analogous to, the control module recited in claim 1, and withdrawal of the rejection of claim 1 under 35 USC 102(b) is respectfully requested.

Regarding claim 6, the Office Action asserts that the expert manufacturing system 10 (allegedly corresponding to SFP/TPG module 10 of the present invention) of Taylor includes an input device 20 (allegedly corresponding to an input manager of the present invention), an expert system 100 (corresponding to a process planner of the present invention), and a motion/process data generation program 110 (corresponding to a tool-path generator and simulator).

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However, input device 20 of Taylor does not correspond to the claimed input manager *“for converting CAD data inputted thereto into an internal geometric modeling kernel data, recognizing a machining feature, extracting a property value of the machining feature and storing the extracted property value of the machining feature in the common DB module.”* Instead, input device 20 of Taylor is described as including a keyboard, a keypad, a mouse, a trackball, a joystick, a digitizer, and the like (see col. 4, lines 44 to 46 of Taylor), ***which are merely used for inputting some data.*** Taylor does not even remotely suggest an input manager corresponding to the input manager of the present invention, which functions to convert a CAD data into internal geometric modeling kernel data, recognize a machining feature, extract a property value of the machining feature and store the extracted property value in the common DB module (see page 8, lines 11 to 16 of the present invention). Thus, the Taylor patent does not disclose or suggest the input manager recited in claim 6, and withdrawal of the rejection of claim 6 under 35 USC §102(b) is respectfully requested.

Having thus overcome each of the rejections made in the Official Action, withdrawal of the rejections and expedited passage of the application to issue is requested.

Respectfully submitted,

BACON & THOMAS, PLLC

A handwritten signature in black ink, appearing to read 'B. Urcia', with a long horizontal flourish extending to the right.

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